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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,359

03/18/2004

Keiichi Mori

KPO194

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25271

7590

01/26/2006

GALLAGHER & LATHROP, A PROFESSIONAL CORPORATION  
601 CALIFORNIA ST  
SUITE 1111  
SAN FRANCISCO, CA 94108

EXAMINER

CHIAM, DINH D

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/803,359

Applicant(s)

MORI, KEIICHI

Examiner

Erin D. Chiem

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the amendment filed on November 9, 2005. Claims 1, 6-8 have been amended and currently claims 1-8 are pending.

#### ***Claim Objections***

Claim 1 is objected to because of the following informalities: the last word "space" is perhaps intended to be "spaced." Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jian (US Application 2003/0002809 A1 "Jian" hereinafter) in view of Duelli et al. (US 6,873,768 B2 "Duelli" hereinafter).

Regarding claims 1, 2, and 8, Jian teaches an optical monitor module comprising a substrate in Figure 6 having formed on the upper surface a positioning structure, namely an array of v-grooves [0154] and reference numbers 631, 633, 635 for positioning a plurality of optical fibers 641, 643 in parallel. The first and second optical fibers having formed integrally therewith at the same end lens portions 621. For clarification purpose, the examiner will further explain how Jian teaches the graded index structure is "formed integrally in one end of the [first and

Art Unit: 2883

second] optical fiber Please refer to Fig. 1 where Jian teaches the stack of semiconductor wafers

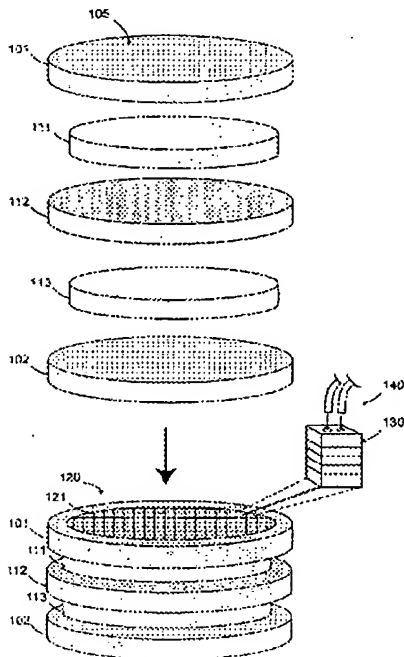


Fig. 1

with a die within the array of dice that form the stack (130).

The applicant does not explicitly and positively claim that the graded index structure is formed immediately at the

distal end of the fiber. Since the optical devices in Jian's teaching forms a continuous stack, then Jian's teaching

reads upon applicant's claimed limitation of "formed

integrally in one end of the... fiber." A beam splitter (612)

mounted on

said substrate

at a position

between an

extension of said axis of the first fiber and an

extension of the axis of the second fiber for

receiving light emitted from said lens portion

(621) of said first optical fiber and for reflecting

the other portions of said light for incidences on

said lens portion (623) of said second optical fiber

(643); wherein the optical paths between said lens

portions of said first and second optical fibers and

said beam splitter are spaced. Please trace the

light ray for further clarification.

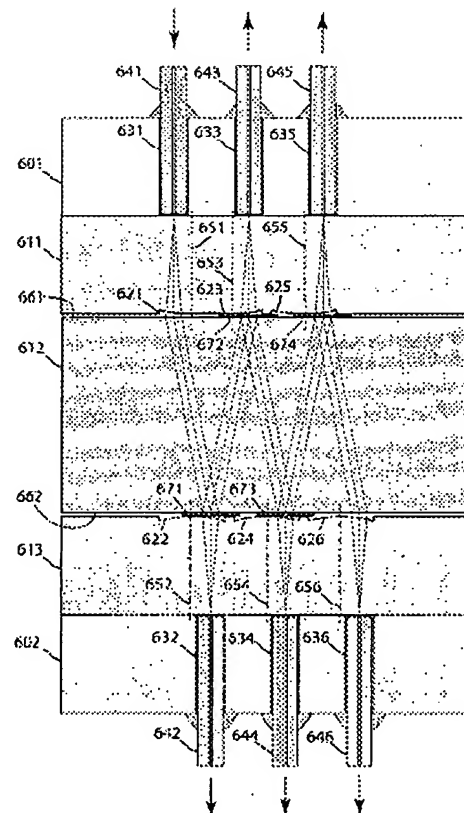


Fig. 6

Art Unit: 2883

Regarding claims 3-5, Jian teaches an array of v-grooves for the purpose of aligning the fibers 641, 643, and 645 with the receiving elements 642, 644, and 646 which clearly infers to one of ordinary skill in the art that the array is fabricated with the same shape and depth.

Regarding claims 6 and 7, the line of intersection wherein the ray transmitted from the lens of the first fiber and the lens of the second fiber intersect near a straight line centrally extending intermediately between and the elongations of the first and second optical fiber. A simple ray trace and a drawn imaginary line between the fibers 641 and 643 of Figure 6 will clearly teach this limitation.

Regarding claims 6 and 7, the beams intersect upon the incidence at elements 671 and 673 and the incident point is the midpoint between the optical axes of the first fiber (641) and the second fiber (643).

Regarding claim 8 Jian also teaches the beam splitter (612) transmit a part of the light received from the first optical path (the portion of the light that lies in the layer 613) to the optical part (fibers 642, 644, 646).

However, Jian does not explicitly teach emitting the light from the fibers at an incline.

Duelli teaches cleaving the optical fiber (Fig. 6) at the graded index portion (63) at an angle for the purpose of transmitting light will travel in the forward path with reduced backreflection (col. 6, lines 5-9).

Since Jian and Duelli are both from the same field of endeavor, the purpose disclosed by Duelli would have been recognized in the pertinent art of Jian.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to cleave the fiber at an angle prior to placing the fiber within the v-

Art Unit: 2883

groove. **The motivation** for employing a cleaved fiber is to reduce back reflection in the transmission path.

### *Response to Arguments*

Applicant's arguments filed November 9, 2005 have been fully considered but they are not persuasive. The examiner further clarified the interpretation of "formed integrally in the ends of the fibers" in the 103 rejection above. Regarding the argument that the beam splitters and the optical paths are spaced; Jian also teaches this limitation wherein the space is provided by layer 611.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2883

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin D Chiem  
Examiner  
Art Unit 2883



Frank G. Font  
Supervisory Primary Examiner  
Technology Center 2800